

## How are Residential Water Budgets Determined?

There are two components to residential water budgets: the indoor budget and the outdoor budget.

### Indoor Water Budget

The indoor budget is calculated using three factors:

- The average amount of water a person uses each day
- The number of people in the household
- The number of days in the billing cycle

### Average Amount of Water Used

A recent study showed that, on average, a person will use about 60 gallons of water each day indoors. This number includes all indoor water use, such as showers and washing clothes, and is based on water-efficient devices. MNWD would utilize a budget of **65** gallons per person per day. For comparison, other water agencies in Orange County have budgeted 55 to 60 gallons per day for each customer's indoor use.

### People per Household

The most recent census data shows there is an average of 2.65 people per household in MNWD's service area. Each single-family home would receive a budget of four people per home. Condominiums would receive a budget of three people per home and apartments would be budgeted two people. Customers are encouraged to contact the District if their situation differs, requiring a larger indoor water budget. A variance is available for customers with a greater number of people in their household.

### Days in Billing Cycle

This is the number of days that you are being billed for service. This information can be located on your water bill, and comes from the meter read dates. It may differ from bill to bill, but will usually be between 28 and 31 days.

### Indoor Budget Formula

**65 gallons per day x number of people x number of days on bill**

*Example:*

- 4 people in the household, 30-day billing cycle
- $65 \times 4 \times 30 = 7,800$  gallons of water = 10.4 billing units  
(1 billing unit = 748 gallons)

## Outdoor Budget

The outdoor budget is calculated using three factors:

- Amount of irrigated acreage per parcel
- Daily evapotranspiration
- Plant factor

### Irrigated Acreage

The irrigated acreage is the amount of landscaped area on the property that receives regular watering. Pools and spas are also included in the irrigated acreage. County Assessor parcel data and the District's Geographic Information System were used to determine the irrigated acreage for your home.

### Daily Evapotranspiration

Evapotranspiration (ET) is the amount of water that is lost each day due to evaporation and plant transpiration. Evaporation will vary due to factors such as wind, humidity and temperature. Plant transpiration is the amount of water that plants lose from their leaves and plant tissues. The ET rate is measured every day in inches. For your water budget, the ET for each day in the billing cycle is added up. There is a higher ET rate in the summer when the weather is warmer, than in the winter. MNWD would measure ET using weather stations that can calculate precise data for 110 distinct microclimate zones within our service area.

### Plant Factor

The plant factor measures the specific amount of irrigation water required by each type of plant in your yard. For example, grasses have a plant factor between 0.6 and 0.8, while water-efficient plants may have a plant factor of only 0.3 or 0.4. Your water budget would be calculated assuming your entire landscaped area is water-thirsty grass, using a plant factor of 0.8.

### Outdoor Water Budget Formula

**Irrigated acreage x ET x plant factor x .62 (conversion factor from inches to cubic feet)**

*Example:*

- 5,000 square feet of irrigated acreage, ET of 5.72 inches
- $5,000 \times 5.72 \times 0.8 \times .62 = 14,186$  gallons of water = 19 billing units  
(1 billing unit = 748 gallons)